

IN THE CLAIMS:

The following is a complete listing of the claims. This listing replaces all earlier versions and listings of the claims.

Claim 1 (currently amended): A printing apparatus comprising:

printing means for performing no-margin printing in accordance with an inputted ~~to which a print image having an image being beyond the perimeter area larger than the area of a sheet~~ to be printed ~~is inputted to carry out no-margin printing;~~ and
output means for dividing, on the basis of an instruction to divide one page of data into a plurality of pieces and print these pieces on respective pages, a print image corresponding to ~~[[a]]~~ the sheet to be printed ~~[[so]]~~ such that each piece of the print image corresponding to a piece of the sheet partly overlaps another piece of the print image corresponding to an adjacent piece of the sheet, and then outputting these pieces of the print ~~[[images]]~~ image to said printing means.

Claim 2 (currently amended): A ~~[[The]]~~ printing apparatus according to claim 1, wherein said output means divides the print image so that the pieces of the print image corresponding to the adjacent pieces of the sheet overlaps a part of the outside of ~~[[said]]~~ the sheet to be printed, and outputs these pieces of the print image to said printing means.

Claim 3 (currently amended): A ~~[[The]]~~ printing apparatus according to claim 1 or 2, wherein said output means divides the print image so that the pieces of the print image corresponding to the adjacent pieces of the sheet overlaps a part of the inside of ~~[[said]]~~

the sheet to be printed, and outputs these pieces of the print image to said printing means.

Claim 4 (currently amended): A ~~[[The]]~~ printing apparatus according to claim 1, wherein said output means subjects one page of print data inputted from input buffering means to affine transformation, divides the transformed print data, and then outputs the divided print data.

Claim 5 (currently amended): A ~~[[The]]~~ printing apparatus according to claim 1, wherein the number of pieces into which the indicated one page of print data is divided is inputted using positive integers for ~~[[an]]~~ x and y directions of the sheet.

Claim 6 (currently amended): A ~~[[The]]~~ printing apparatus according to claim 5, wherein ~~[[the]]~~ division numbers are calculated for the x and y directions, respectively, on the basis of an inputted value and the sizes of the sheet in the x and y directions, respectively.

Claim 7 (currently amended): A ~~[[The]]~~ printing apparatus according to claim 6, wherein said printing means can carry out printing using an outputted print image in which at least one side of the sheet has an arbitrary size, and ~~[[said]]~~ the print image is outputted by indicating one side of the sheet to the printing means on the basis of ~~[[said]]~~ the division numbers inputted using the positive integers for the x and y directions, respectively.

Claim 8 (currently amended): A printing method utilizing a printing section to perform no-margin printing in accordance with an inputted ~~to which a~~ print image having

an image being beyond the perimeter area larger than the area of a sheet to be printed is inputted to carry out no-margin printing, ~~[[the]]~~ said method comprising the steps of:

~~an output step of~~ dividing, on the basis of an instruction to divide one page of data into a plurality of pieces and print these pieces on respective pages, a print image corresponding to ~~[[a]]~~ the sheet to be printed ~~[[so]]~~ such that each piece of the print image corresponding to a piece of the sheet partly overlaps another piece of the print image corresponding to an adjacent piece of the sheet~~[[,]]~~; and

~~[[then]]~~ outputting these pieces of the print ~~[[images]]~~ image to the printing section.

Claim 9 (currently amended): A ~~[[The]]~~ printing method according to claim 8, wherein said ~~output~~ dividing step ~~comprises~~ includes dividing the print image ~~[[so]]~~ such that the pieces of the print image corresponding to the adjacent pieces of the sheet overlaps a part of the outside of ~~[[said]]~~ the sheet to be printed, ~~and outputting these pieces of the print image~~.

Claim 10 (currently amended): A ~~[[The]]~~ printing method according to claim 8 or 9, wherein said ~~output~~ dividing step ~~comprises~~ includes dividing the print image ~~[[so]]~~ such that the pieces of the print image corresponding to the adjacent pieces of the sheet overlaps a part of the inside of ~~[[said]]~~ the sheet to be printed, ~~and outputting these pieces of the print image~~.

Claim 11 (currently amended): A ~~[[The]]~~ printing method according to claim 8, wherein said ~~[[output]]~~ outputting step includes ~~comprises~~ subjecting one page of

print data inputted from an input buffering section to affine transformation, dividing the transformed print data, and then outputting the divided print data.

Claim 12 (currently amended): A ~~[[The]]~~ printing method according to claim 8, wherein the number of pieces into which the indicated one page of print data is divided is inputted using positive integers for ~~[[an]]~~ x and y directions of the sheet.

Claim 13 (currently amended): A ~~[[The]]~~ printing method according to claim 12, wherein ~~[[the]]~~ division numbers are calculated for the x and y directions, respectively, on the basis of an inputted value and the sizes of the sheet in the x and y directions, respectively.

Claim 14 (currently amended): A ~~[[The]]~~ printing method according to claim 13, wherein ~~[[said]]~~ the printing section can carry out printing using an outputted print image in which at least one side of the sheet has an arbitrary size , and ~~[[said]]~~ the print image is outputted by indicating one side of the sheet to the printing section on the basis of ~~[[said]]~~ the division numbers inputted using the positive integers for the x and y directions, respectively.

Claim 15 (currently amended): A computer program product for executing a printing method utilizing a printing section to perform no-margin printing in accordance with an inputted ~~to which a print image having an image being beyond the perimeter area larger than the area of a sheet~~ to be printed ~~is inputted to carry out no-margin printing~~, said printing method comprising the steps of:

~~an output step of~~ dividing, on the basis of an instruction to divide one page of data into a plurality of pieces and print these pieces on respective pages, a print image corresponding to ~~[[a]]~~ the sheet to be printed ~~[[so]]~~ such that each piece of the print image corresponding to a piece of the sheet partly overlaps another piece of the print image corresponding to an adjacent piece of the sheet~~[[,]]~~; and

~~[[then]]~~ outputting these pieces of the print ~~[[images]]~~ image to the printing section.

Claim 16 (currently amended): A ~~[[The]]~~ program product according to claim 15, wherein said ~~output~~ dividing step ~~comprises~~ includes dividing the print image ~~[[so]]~~ such that the pieces of the print image corresponding to the adjacent pieces of the sheet overlaps a part of the outside of ~~[[said]]~~ the sheet to be printed, ~~and outputting these pieces of the print image~~.

Claim 17 (currently amended): A ~~[[The]]~~ program product according to claim 15 or 16, wherein said ~~output~~ dividing step ~~comprises~~ includes dividing the print image ~~[[so]]~~ such that the pieces of the print image corresponding to the adjacent pieces of the sheet overlaps a part of the inside of ~~[[said]]~~ the sheet to be printed, ~~and outputting these pieces of the print image~~.

Claim 18 (currently amended): A ~~[[The]]~~ program product according to claim 15, wherein said ~~[[output]]~~ outputting step includes ~~comprises~~ subjecting one page of print data inputted from an input buffering section to affine transformation, dividing the transformed print data, and then outputting the divided print data.

Claim 19 (currently amended): A ~~[[The]]~~ program product according to claim 15, wherein the number of pieces into which the indicated one page of print data is divided is inputted using positive integers for ~~[[an]]~~ x and y directions of the sheet.

Claim 20 (currently amended): A ~~[[The]]~~ program product according to claim 19, wherein ~~[[the]]~~ division numbers are calculated for the x and y directions, respectively, on the basis of an inputted value and the sizes of the sheet in the x and y directions, respectively.

Claim 21 (currently amended): A ~~[[The]]~~ program product according to claim 20, wherein ~~[[said]]~~ the printing section can carry out printing using an outputted print image in which at least one side of the sheet has an arbitrary size, and ~~[[said]]~~ the print image is outputted by indicating one side of the sheet to the printing section on the basis of ~~[[said]]~~ the division numbers inputted using the positive integers for the x and y directions, respectively.

AMENDMENTS TO THE DRAWINGS

Attached are six (6) corrected drawing sheets to be substituted for the corresponding drawing sheets presently on file in the above-identified application. The attached replacement drawing sheets incorporate the changes required in reply to the Office Action dated January 29, 2004, and are not believed to add new matter to the original disclosure. The changes are as follows:

Figs. 1-5 have been labeled "PRIOR ART".

In Fig. 6, box 101 has been labeled "Printing Apparatus".

Attachments: Replacement Sheets

 Annotated Sheets Showing Changes